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basic imagery interpretation report

Activity and Developments at Plesetsk Missile/Space Test Center SSM (S)

MISSILE RANGES: STRATEGIC SSM SPACE FACILITIES

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OCTOBER 1979

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INSTALLATION OR ACTIVITY NAME					COUNTRY
Activity and Developments at Plesetsk Missile/Space Test Center SSM, May 1978—March 1979					UR
UTM COORDINATES	GEOGRAPHIC COORDINATES	CATEGORY	BE NO.	COMIREX NO.	NIETB NO.
NA	62-57-46N 040-23-46E				

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MAP REFERENCE

DMA. USATC, Series 200, Sheets 0102-9 and -10, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

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ABSTRACT

1. (TSR) Significant events at Plesetsk Missile/Space Test Center (PMSTC) SSM from May 1978 through March 1979 included the start of conversion/modification of ICBM launch test sites 11, 14, and 22; continued construction at ICBM launch test site 28, the mobile missile-related facilities, and space launch sites 3 and 27; the start of construction/modification at space launch site 9; new construction and activity at the missile handling facility; and the start of modification of the VT-3 (Bow and Arrow) interferometer at the rangehead tracking facility.

2. (TSR) This report is based upon all available KEYHOLE imagery acquired between [redacted] and updates NPIC report [redacted] A location map, nine tables, and 11 annotated photographs are also included in this report.

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INTRODUCTION

3. (TSR) Plesetsk Missile/Space Test Center SSM is situated in the northwestern USSR, approximately 400 nautical miles (nm) northeast of Moscow (Figure 1). This major Soviet offensive missile and space test center has an important function in the research and development (R&D) of ICBMs, the launching of reconnaissance and research-related satellites, and strategic rocket forces (SRF) troop training.

4. (TSR) PMSTC contains 24 launch sites; ten of these are complete, one is under construction, two are deactivated, five are undergoing conversion/modification, one is abandoned, and five are not operational. PMSTC also contains separate tracking and instrumentation installations, radio communication stations, and extensive base support facilities.

5. (TSR) This report updates the previous report on PMSTC.[1] The discussion of activity observed at the test center has been divided into three categories: weapon systems, space systems, and support facilities.

BASIC DESCRIPTION

Weapon Systems

6. (TSR) PMSTC currently supports R&D for the SS-16 and crew training for the SS-13. The test center contains six troop training silos for the SS-13 ICBM system, five SS-16 mobile ICBM-associated facilities, four former SS-13 silos which are currently undergoing conversion/-modification, and two new launch silos under construction for an as yet unidentified missile system (Table 1).

SS-16

7. [redacted] Since that time new construction/modification activity has continued at four of the five SS-16 mobile ICBM facilities. No mobile missile ground support equipment (GSE) has been observed at any of the five SS-16 mobile ICBM-associated facilities during this reporting period.

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8. (TSR) Activity which highlighted the period included the construction of one 66- by 24-meter 11 bay garage (six meters wider than the standard 11-bay garage) and foundations for a high-bay building at ICBM Launch Test Site 5 (Figure 2). An SS-16/-20-associated, [redacted] van truck mockup was observed at Mobile ICBM Facility 2 (Figure 3).

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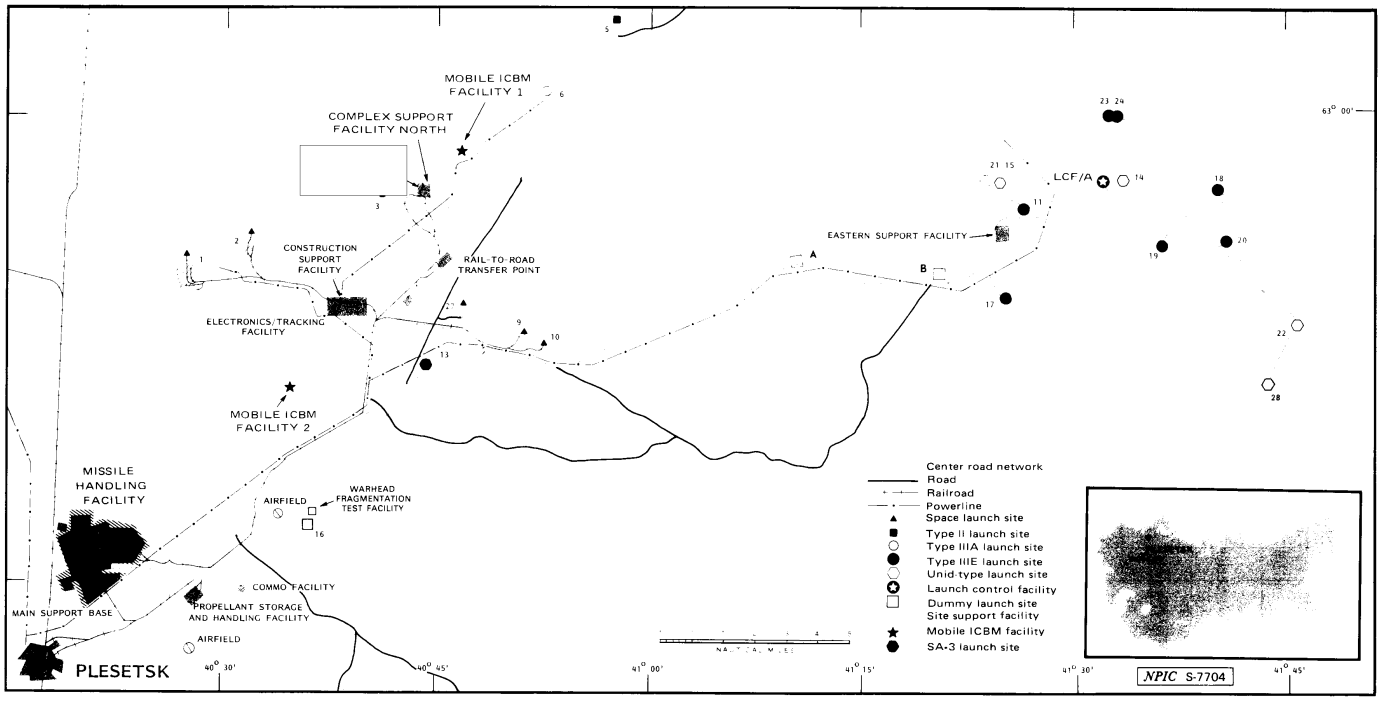

FIGURE 1. LOCATIONS OF FACILITIES AT THE PLESETSK MISSILE/SPACE CENTER SSM, USSR

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9. (TSR) A chronology of significant activity and construction/modification observed at the five SS-16 mobile ICBM facilities is listed in Table 2. An accounting of mobile missile-related garages and buildings, either complete or under construction at the five SS-16 mobile ICBM-associated facilities, is presented in Table 3.[3]

SS-13

10. The SS-13 facilities include six type IIIE launch silos, a launch control facility (LCF), and a mockup of a type IIIE silo. During the reporting period six successful SS-13 launches occurred.[4] 25X1

11. (TSR) A listing of SS-13 launches from the rangehead and correlations with significant activity at launch test sites 17, 18, and 20 is presented in Table 4.[4] No activity was observed at launch test sites 19, 23, and 24.

Silos Currently Undergoing Conversion/Modification

12. (TSR) Conversion/modification of four former type IIIE silos to unknown type silos was begun at PMSTC during the reporting period. Conversion/modification was first observed at launch test site 14 on The silo door had been removed from the rails, and two cylinders were on the silo apron on the headworks area had been faced with concrete blocks (Figure 4). 25X1 25X1

13. (TSR) Conversion/modification of the north silo at launch test site 11 had begun by when a cylinder was observed on the silo apron. Three cylinders were observed on the silo apron at the south silo of launch test site 11 on imagery of This was the beginning of conversion/modification at this silo. 25X1 25X1 25X1

14. (TSR) Conversion/modification at launch test site 22 was observed on imagery of when three cylinders were on the silo apron (Figure 5). 25X1 25X1

15. (TSR) A chronology of significant activity and conversion/modification activity observed at launch test sites 11, 14, and 22 is presented in Table 4.

New Silos Under Construction

16. (TSR) ICBM launch test site 28 was first observed under construction on imagery of Construction of the dual silos progressed slowly throughout the reporting period and was highlighted by the construction of gantry cranes at both silos (Figure 6). A construction chronology is presented in Table 5. 25X1 25X1

Space Systems

17. (TSR) PMSTC includes launch facilities for six classes of space boosters (SL-3, -4, -6, -7, -8 and -14), all of which are derivitives of MRBM/IRBM and ICBM weapon systems (Table 6).

SL-3/-4/-6

18. (TSR) Space launch sites 1, 2, and 3 were originally built as type 1A (SS-6) launch sites. Launch sites 1 and 2 were modified in the mid-1960s and are now used to support SL-3, -4, and -6 launches. The payloads associated with these space boosters have included communications, elint, reconnaissance, geophysical, and vertical space probes. A listing of space launches and significant activity is given in Table 7.

19. (TSR) Space launch site 3 was deactivated and partially dismantled in mid-1967. Since September 1976 and through the current reporting period, considerable construction activity has been underway at launch site 3, suggesting a new role for this space launch site (Figure 7). Refacing of the flame bucket had been completed by 25X1

SL-7/-8

20. (TSR) The SL-7 has been launched from space launch site 9, a two-pad, one-gantry launch site. The gantry for the east launch pad was never completed. The last launch of an SL-7 from PMSTC occurred in June 1977.[2] On new construction/modification activity was observed at this site. Activity has included the excavation of the propellant storage bunkers, the launch control bunker, and foundations for three new buildings (Figure 8). 25X1

21. (TSR) The SL-8 is launched from space launch site 10, a two-pad, two-gantry launch site. No significant activity was observed at this launch site during the reporting period.

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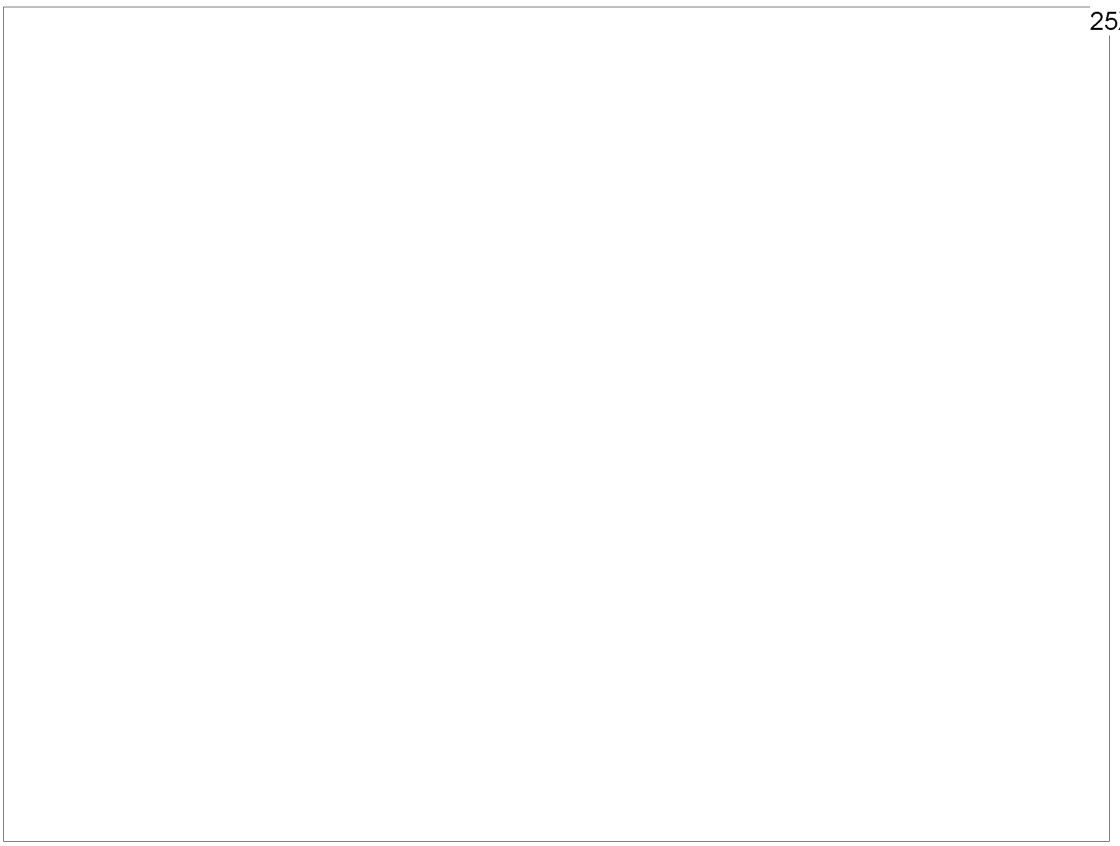

SL-14

22. (TSR) The SL-14 is a three-stage space system which is launched from space launch site 27. All six launches to date have been from the south launch pad.[2]* By [redacted] the in-pad erector had been installed in the north launch pad (Figure 9). 25X1

Support Facilities

23. (TSR) Fourteen facilities provide support for the weapon and space launch operations at PMSTC (Table 8). Activity was observed at nine of the support facilities during the reporting period (Table 9). Of particular significance was the activity observed at the missile handling facility (MHF; Figure 10) and the rangehead tracking facility.

Missile Handling Facility

24. (TSR) Type II and probable type I warhead vans were observed at the MHF in the payload checkout area (formerly the space payload checkout area) on imagery of [redacted] 25X1 Their presence implies that this area is no longer associated exclusively with space payloads.

25. (TSR) A truck-mounted TWIN EAR antenna was observed in the SS-16 receiving and checkout area of the MHF on imagery of [redacted] This was the first sighting of a TWIN EAR at this facility since April 1976. 25X1

Rangehead Tracking Facility

26. (TSR) The VT-3 (Bow and Arrow) interferometer at this tracking facility is being modified. Trees were being cleared along an azimuth of [redacted] from the central control building (Figure 11). On [redacted] the clearing extended approximately 4,500 meters from this building. A modification of this type will improve the angular rate measuring capability of the facility. This construction is probably associated with new missile/space programs at PMSTC. Silo conversion/modification for an unknown missile system was underway at this test center during the reporting period, as was expansion of space launch facilities. Similar VT-3 modifications were being made at Vorkuta Interferometer [redacted], Tyuratam Rangehead Tracking Facility [redacted], and Tyuratam Tracking Facility 5 [redacted]. 25X1 25X1 25X1 25X1 25X1

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Table 1. Weapon Systems and Launch Facilities at PMSTC

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System	Launch Site(s)	Function	Remarks
SS-16	Mobile ICBM facility 1,2; ICBM launch test site 5, 6, 21	R&D	Mobile missile-related construction/modification continued at mobile ICBM facility 1 (formerly launch site 4), mobile ICBM facility 2 (formerly launch site 7), and launch site 5; site 21 (a former SS-X-15-associated site) was modified in 1970-71
SS-13	**17, 18, 19, 20, 23 & 24**	**Troop training**	**Sites 17, 18, 19, 20, 23, & 24 are IIIE single-silo sites**
SS-13	16	Training of SS-13 security troops	Site modified to resemble deployed SS-13 launch site by [redacted]
Unknown	**11,14, 22, & 28**	**R&D/unknown**	**Sites 11 (dual silo) and 14, both former SS-13 R&D silos, and site 22, a former SS-13 troop training silo, were undergoing conversion/modification; site 28 is a dual-silo site in an early stage of construction**
SAM	13		By [redacted] 4 SA-3 launchers, each with 2 SA-3 missiles, and a LOW BLOW radar were at the north launch pad; this equipment has remained at the site throughout the reporting period

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Table 2. A Chronology of Significant Events and Construction at SS-16 Mobile ICBM-Associated Facilities at PMSTC

This table in its entirety is classified TOP SECRET RUFF

Facility	May 1978	June 1978	July 1978	August 1978	September 1978	October 1978	November 1978	December 1978	January 1979	February 1979	March 1979	
Mobile ICBM Facility 1	NSC*	[redacted] The circular excavation on the west side of the launch area, last reported on [redacted], had been backfilled; a small square bldg was over the previously excavated area; a trench extended east from the base of this bldg to a bldg in the center of the launch area; 1 of the SS-11 canisters, previously observed in the GSE area, was lying in a trench directly south of the GSE area [redacted] Footings for a very small support bldg were observed adjacent to an excavation near the GSE area; the remaining SS-11 canister in the GSE area had been removed	[redacted] The SS-11 canister previously reported on [redacted] had been covered with dirt	[redacted] 1 fuel transporter and 2 trucks were engaged in a prob fuel transfer operation in front of a garage at the north end of the site [redacted] A paved road/apron had been constructed around a prob fuel storage area; the prob fuel storage area contained at least 5 small fuel tanks	[redacted] Several more fuel tanks had been placed in the prob fuel storage area; the SS-11 canister that had been removed from the GSE area had been placed on a rectangular structure and was perpendicular to the buried SS-11 canister	[redacted] The fuel tanks in the prob fuel storage area had been partially covered with dirt	[redacted] Snow was cleared from the ramps/aprons serving the garages and missile-ready bldgs	NSC	NSC	[redacted] Both SS-7 erectors were being dismantled on their launch pads	[redacted] The erector on the east launch pad had been removed	25X1 25X1 25X1 25X1 25X1 25X1
Mobile ICBM Facility 2	[redacted] In the operations area, a poss vehicle hardstand with poss alignment blocks, [redacted] was constructed adjacent to the 66- x 24-m 11-bay garage	[redacted] An open-sided shed had been erected between the storage bunker and the high-bay bldg in the existing SS-8 warhead storage area; the area in front of the 9-bay garages was being paved	NSC	NSC	[redacted] A mockup of an SS-16/-20-associated [redacted] van truck was observed on the south side of the operations area	[redacted] A foundation for a small support bldg was observed directly behind the single-bay garages	[redacted] The small support bldg directly behind the single-bay garages appeared to be externally complete [redacted] Snow had been cleared from the aprons/ramps serving the single-bay garages and the missile-ready bldgs	NSC	NSC	[redacted] Snow had been cleared from the aprons/ramps serving the single-bay and 11-bay garages and the missile-ready bldgs	NSC	25X1 25X1 25X1 25X1 25X1
Launch test site 5	[redacted] Footings for a new bldg [redacted] were in the NW corner of the launch area	NSC	[redacted] Construction materials were stacked in front of the footings reported on [redacted] 6 vertical structures had been erected	NSC	[redacted] Construction of the 9-bay garage and the [redacted] bldg in the launch area was continuing; the high-bay bldg ucon on the east side of the support area appeared to be externally complete; footings for a new and prob related structure were seen just east of the high-bay bldg	[redacted] The 9-bay garage on the east side of the site was externally complete; construction was continuing on the [redacted] in the NW corner of the site; this bldg can now be identified as an 11-bay garage	[redacted] 2 small cylindrical fuel tanks and unid material were inside the foundation reported behind the high-bay bldg on imagery of [redacted]	NSC	[redacted] Footings for a 48-m sq high-bay bldg were on the west side of the operations area	[redacted] Footings for a prob 4-bay shed/garage were in the NW section of the operations area	NSC	25X1 25X1 25X1 25X1 25X1 25X11
Launch test site 6	NSC	NSC	[redacted] Aprons in front of 2 of the 11-bay garages had been paved	NSC	[redacted] Unid canvas-covered equipment was on the apron in front of the 11-bay garages	NSC	NSC	NSC	NSC	NSC	[redacted] An unid vehicle/object was protruding from an open door of 1 of the 11-bay garages	25X1
Launch test site 21	NSC	NSC	NSC	NSC	[redacted] The movable roof section on the tentlike structure was retracted; the central area of the structure was unoccupied	NSC	NSC	No usable imagery	NSC	NSC	[redacted] Vehicle tracks leading into the tentlike structure and into the canvas-covered entrance to the control bunker were seen; the movable roof section on the tentlike structure was still retracted	25X1

*No significant change

Table 3. Mobile Missile-Related Buildings and Garages at SS-16 Mobile ICBM-Associated Facilities at PMSTC

This table in its entirety is classified TOP SECRET RUFF

Installation Name	Date Total Facility Last Observed	Single-Bay Garage Complete/Ucon		3-Bay Garage Complete/Ucon		6-Bay Garage Complete/Ucon		9-Bay Garage Complete/Ucon		11-bay Garage (66 x 18m) Complete/Ucon		11-bay Garage (66 x 24m) Complete/Ucon		Drive-in High Bay Complete/Ucon		Tech Spt Bldg Complete/Ucon		Clerestory Bldg Complete/Ucon		Misc Bldgs Complete/Ucon		Remarks
Mobile ICBM Facility 1 [redacted]		6	0	0	0	0	0	0	0	2	0	1	0	0	0	1 (see Remarks)	0	1	0	3	0	Technical support bldg is a modified SS-7 GSE 2-bay garage
Mobile ICBM Facility 2 [redacted]		6	0	0	0	0	0	2	1	3	0	1	0	1	0	0	0	1	0	0	2	
ICBM Launch Test Site 6 [redacted]		0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	
ICBM Launch Test Site 5 [redacted]		0	0	1 (see Remarks)	0	0	0	2	0	0	0	1	0	0	1	0	0	1	0	3	2	3-bay garage is a modified partially bunkered GSE garage and is not identical to the 3-bay garage seen at deployed SS-20 bases; however, it could house the same type of GSE (MAZ-543 MSV)

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Table 4. Chronology of Significant Activity and Conversion/Modification at SS-13 Launch Test Sites at PMSTC
The table in its entirety is classified TOP SECRET RUFF [redacted] 25X1

	Launch Site	May 1978	June 1978	July 1978	August 1978	September 1978	October 1978	November 1978	December 1978	January 1979	February 1979	March 1979
SS-13 Launches		[redacted] SS-13 Mod 1 impact Kamchatka 3098 range	[redacted] SS-13 Mod 1 impact Kamchatka 3044 range	[redacted] SS-13 Mod 1 impact Kamchatka 3110 range	[redacted] SS-13 Mod 2 impact Kamchatka 3022 range		[redacted] SS-13 Mod 1 failure			[redacted] SS-13 Mod 1 impact Kamchatka 3100 range	[redacted] SS-13 Mod 1 impact Kamchatka range 3097	
SS-13 Troop Training Silos	17	[redacted] An open-sided shed had been erected adjacent to the silo apron directly east of the silo	NSC*	NSC	No usable imagery	[redacted] Canvas covering had been removed from the shed; the framework remained	NSC	No usable imagery	No usable imagery	No usable imagery	NSC	NSC
	18	NSC	NSC	[redacted] The open-sided shed, which was constructed adjacent to the silo apron on [redacted] had been removed	No usable imagery	NSC	NSC	No usable imagery	No usable imagery	[redacted] The silo apron had been cleared of snow, 5 poss small stacks of unid material were on the apron	No usable imagery	NSC
	19	NSC	NSC	NSC	NSC	NSC	NSC	No usable imagery	No usable imagery	NSC	No usable imagery	NSC
	20	[redacted] A small portable, walled, tentlike shelter had been constructed within the silo, immediately west of the silo; 2 small vehicles/ pieces of equipment were west of the shelter	NSC	[redacted] The shelter had been moved to the intersection of the silo apron and the approach road; several small pieces of unid equipment were on the ground near the closed silo	No usable imagery	[redacted] The shelter had been moved immediately west of the silo, where it was originally observed on [redacted]	NSC	[redacted] The shelter had been removed from the site; 4 unid vehicles/ pieces of equipment were observed on the silo apron	No usable imagery	NSC	[redacted] Unid objects/vehicles were by the silo	NSC
	23	NSC	NSC	NSC	No usable imagery	NSC	NSC	No usable imagery	No usable imagery	NSC	No usable imagery	NSC
	24	NSC	NSC	NSC	No usable imagery	NSC	NSC	No usable imagery	No usable imagery	NSC	No usable imagery	NSC
SS-13 Silos Currently Undergoing Conversion/ Modification	11	NSC	[redacted] The southernmost silo door was open and an environmental cover had been placed over the open silo	No usable imagery	NSC	[redacted] 2 small objects/ pieces of equipment were on the north silo apron; both silo doors were closed [redacted] 1 mobile crane, 1 trailer, and 1 vertical cylinder approximately 5 m high and 2 m in diameter were on the apron near the north silo; clearing and grading were observed 600 m south of the launch site; conversion/modification had begun at the north silo	[redacted] A second vertical cylinder, approximately 12 m high and 2 m in diameter, was on the apron of the north silo [redacted] 2 vertical cylinders and a mobile crane remained on the apron of the north silo; a poss cylinder object [redacted] was lying across the GSE alignment marks west of the north silo	[redacted] Conversion/modification activity was underway at the silo; 3 cylinders [redacted] were lying on the silo apron; the silo door was closed; at the north silo, the [redacted] cylinders were standing vertically on the silo apron; 4 vehicles/ pieces of equipment were present; the [redacted] m poss cylinder object was not observed; the silo door was open; foundations for two support bldgs were observed in the construction support camp 600 m south of site 11	NSC	[redacted] The silo door remained open at the north silo; 2 cylinders, on the apron near the north silo on [redacted] were 90 m west of the silo [redacted] The door remained open at the north silo	[redacted] The north silo door appeared to be open; 2 vehicles were on the apron	[redacted] One of the support bldgs in the construction support camp was nearly complete [redacted] Construction was continuing at both silos
	14	[redacted] 5 house trailers, 3 van trucks, 1 truck-mounted crane, 30 cargo trucks, 1 flatbed trailer, 1 poss backhoe, and 5 prob POL tanks were on the silo apron [redacted] 5 house trailers, 5 POL tanks, and approximately 12 vehicles/pieces of equipment were present [redacted] 5 house trailers, 5 POL tanks, and at least 25 vehicles/pieces of equipment were present; the silo door was closed [redacted] 1 large mobile crane, 5 house trailers, 5 POL tanks, and 9 trucks were at the launch test site; 14 trucks were on the access road outside the site	[redacted] 6 house trailers and approximately 3 vehicles were parked on the apron	[redacted] 3 house trailers and approximately 10 vehicles were present; the silo door was closed	[redacted] The silo door was open and an environmental cover had been placed over the silo aperture; a mobile crane was adjacent to the silo [redacted] The silo door was open; 5 vehicles/pieces of equipment and 1 cylindrical tank were on the silo apron	[redacted] Silo conversion/ modification was underway; the silo door had been removed from the rails, and the door stop mound had been leveled; a support bldg east of the silo had been razed; materials on the silo apron included 2 cylinders, each [redacted] m in diameter and several stacks of unid materials; a mobile jib crane, a truck-mounted crane, a bulldozer, and 8 trucks were also on the silo apron; a temporary support camp consisting of 9 house trailers was outside the site entrance [redacted] The silo door was no longer observed; the 2 [redacted] cylinders present on [redacted] were not observed; the [redacted] cylinder appeared to be bisected horizontally; the [redacted] cylinder was still present, and a newly observed cylinder, [redacted] was next to it; a poss circular construction template [redacted] in diameter was SW of the silo; 1 truck-mounted crane was working over the open silo [redacted] The silo headworks area had been faced with blocks; the diameter was approximately 10 m; a large mobile crane was near the silo	NSC	NSC	NSC	[redacted] All previously reported cylinders had been removed; construction was continuing at an extremely slow pace	[redacted] The temporary support area had been removed; no activity was observed at the silo after the date	NSC
	22	[redacted] A house trailer was parked within the site at the south end of the turnaround apron [redacted] 2 vehicles were near the silo door; a third vehicle and 1 house trailer were at the south end of the silo [redacted] 5 van trucks were near the silo door [redacted] The silo door was open, and at least 10 vehicles/ pieces of equipment were onsite	[redacted] The silo door was partially open; 2 poss vehicles were at the silo [redacted] A van truck was on the silo apron [redacted] A prob warhead exercise was in progress; at least 6 vehicles were parked on the launch pad; a prob type II warhead van, with the van portion elevated, was backed up to the silo			[redacted] The silo door was closed; 2 trucks were on the silo apron	NSC	[redacted] A mobile crane and three cylinders were on the apron next to the silo door; 2 of the cylinders were approximately 9 m long x 2 m in diameter	No usable imagery	[redacted] The silo door had been removed since [redacted] unid material was near the open silo [redacted] A mobile crane and one other piece of equipment were next to the silo [redacted] The headworks had been removed; a mobile crane was adjacent to the silo; the headworks appeared to be in several segments and had been placed in a pile with other debris just outside the site; on imagery of [redacted] the diameter of the silo opening was [redacted] the diameter was [redacted]	[redacted] The excavated silo headworks area had been lined with facing blocks; the inner diameter of the newly faced headworks area was [redacted] a mobile crane was at the site; 6 house trailers were parked on the access road outside the security fence	NSC

*No significant change

Table 5. Silo Construction Chronology at ICBM Launch Test Site 28, PMSTC

This table in its entirety is classified TOP SECRET RUFF

May 1978	June 1978	July 1978	August 1978	September 1978	October 1978	November 1978	December 1978	January 1979	February 1979	March 1979
[redacted] The NW silo was lined with silo facing blocks, a mobile crane was prob in the process of placing paving blocks around the outside edge of the SE silo; construction materials remained on the construction apron [redacted] Clearings for poss service aprons extended to the SW from each silo; the service road from launch site 22 had been extended to a point approximately half the distance to site 28 [redacted] Paving blocks connected the two silo excavations; this apron was built between [redacted] and [redacted] a large mobile crane was near the SE silo, a cargo truck was backed up to the NW silo	[redacted] A prob mobile crane was next to the SE silo; a poss vehicle was next to the NW silo; a truck was on the apron between the two silos	NSC*	[redacted] Only part of the SE silo was observed; the access road appeared to be complete	[redacted] Construction was continuing on the silos; net/canvas partially covered SE silo [redacted] Netting was suspended over both silo openings	NSC	NSC	No usable imagery	[redacted] The rails for a gantry crane had been placed at the SE silo since [redacted] ballast had been laid down for one side of the crane railbed at the NW silo; environmental covers had been placed over the silo excavations since [redacted] [redacted] Gantry crane rails had been installed at the NW silo since [redacted] unid material was on the apron of the SE silo [redacted] Prob gantry crane components were beside the crane rails at both silos; some of these components may have been part of the unid material observed at the SE silo on [redacted]	[redacted] Both silos remained in an early stage of construction [redacted] A gantry crane was being assembled on the apron of the SE silo	[redacted] A service road connecting the south end of the aprons of the 2 silos was ucon; both silos remained covered [redacted] The gantry crane at the SE silo was complete; gantry crane tracks were nearly complete at the NW silo

* No significant change

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Table 6. Space Systems and Launch Facilities at PMSTC

This table in its entirety is classified TOP SECRET RUFF

System	Launch Site(s)	Remarks
SL-3/4/6	1 & 2	Originally type IA ICBM launch site; payloads include communications, elint, reconnaissance, and geophysical satellites
	3	Site deactivated until September 1976; has since been undergoing modification/refurbishment
SL-7	9	Site has been undergoing modification/ refurbishment; payloads include radar calibration, command system test, and environmental research satellites
SL-8	10	Payloads include NAVSATS, geodetic communications, radar calibration, and ASAT target satellites
SL-14	27	The north launch pad has been completed; payloads include elint and scientific satellites

[redacted] 25X1

Table F. A Chronology of Launches and Significant Activity at PMSTC Space Launch Sites
This table in its entirety is classified TOP SECRET RUFF

Space System	Launch Site	May 1978	June 1978	July 1978	August 1978	September 1978	October 1978	November 1978	December 1978	January 1979	February 1979	March 1979
SL-3												
SL-4												
SL-8												
	Launch Site 1	[redacted] One single story barracks had been razed [redacted] At launch point 1, gantry checkout operations were observed [redacted] At launch point 2, gantry checkout operations were observed [redacted] A support bldg on the north side of the rail line behind launch point 2 had been completed	NSC *	NSC	NSC	No usable imagery	[redacted] The multistory barracks in the housing/ admin area appeared to be externally complete	No usable imagery	NSC	No usable imagery	NSC	NSC
	Launch Site 2	[redacted] A rail spur was being constructed between a 3-bay, rail-served support bldg ucon and the large missile receiving and checkout bldg	NSC	[redacted] The support bldg reported on [redacted] appeared externally complete	NSC	No usable imagery	[redacted] The rail spur reported on [redacted] appeared to be complete	No usable imagery	No usable imagery	No usable imagery	NSC	NSC
	Launch Site 3	[redacted] In the support area, numerous pieces of unid construction/refurbishment material were observed on the hardstand, the most unusual were 2 arch-shaped objects	[redacted] 2 unid arch-shaped objects which had been on the hardstand were gone; an unid U-shaped object was in front of the deactivated launch point and was probably associated with the refurbishment of the launch point [redacted] The type III-E silo door in front of the SS-8 guidance domes had been removed	NSC	[redacted] 4 groups of of 3 excavations each were observed; these excavations were probably for the installation of lightning and lightning arrestor towers [redacted] 2 van trucks were parked adjacent to the MAZ-543 missile support van in the SS-8 guidance area	[redacted] A rail spur connecting the large missile assembly/checkout bldg to the main rail line was observed ucon; a missile support bldg ucon had been completed, foundations were observed in the housing/ admin area	[redacted] A circular prob work platform was observed in front of deactivated launch point 3 [redacted] A third multistory barracks appeared to be externally complete, the prob work platform had either been placed in the launch aperture or removed from the site	NSC	No usable imagery	[redacted] Refacing of the flame bucket had begun [redacted] Refacing of the flame bucket had been completed	No usable imagery	NSC
SL-7		No launches during the reporting period				No launches during the reporting period				No launches during the reporting period		
SL-8												
	Launch Site 9	[redacted] New construction/ modification had begun, earth was being removed from around the south propellant bunker and work had started on the foundations for 2 new bldgs within the launch area	[redacted] Extensive construction activity was observed in the launch area; both propellant bunkers were being unearthed; footings for a [redacted] structure were near each of the propellant storage bunkers; footings for a third structure, [redacted] were near the gantry rails at the east launch position; a new [redacted] support bldg was externally complete south of the east launch position	[redacted] Construction appeared to be continuing on the bldgs in the SE portion of the launch area	[redacted] Construction was continuing at the launch site [redacted] Excavation of both propellant bunkers and the control bunker was continuing; half of the roof of the propellant bunker at the north end of the site had been removed, a mobile crane was east of the bunker, and 2 cylindrical prob tanks were on the ground near the bunker					[redacted] Construction was continuing at the launch site	[redacted] Construction was continuing on the propellant and control facilities; unid materials remained on the launch pad apron	[redacted] Construction was continuing on the propellant and control facilities
	Launch Site 9	NSC	[redacted] At the west launch position, the gantry was near the launch pad; unid activity was observed on the pad near the launch stand	NSC	[redacted] 1 of the roof panels of the control bunker had been removed; 5 footings were south of the south propellant bunker [redacted] 2 propellant tanks were on railcars east of the west launch pad	NSC	[redacted] Construction was continuing at the launch site	No usable imagery	No usable imagery			
	Launch Site 10	NSC	NSC	NSC	[redacted] An empty SL-8 rail transporter was on the service spur of the east launch pad; the gantry towers were over both launch pads	[redacted] The SL-8 rail transporter had been removed	[redacted] 3 propellant railcars were on the main rail spur at the launch site	No usable imagery	No usable imagery	NSC	NSC	
SL-14												
	Launch Site 27	[redacted] The inpad erector had been installed in the north launch position	[redacted] On imagery acquired at 1921Z, indications of a recent launch were observed; the inpad erector on the south launch pad had been raised, and exhaust burn marks were on the pad around the launch point and in the flame bucket; on imagery acquired at 0749Z on [redacted] the erector had been lowered, and no evidence of launch preparations was observed	No usable imagery	[redacted] The inpad erector at the north launch pad was partially elevated, the extension to the northern missile-ready bunker appeared to be complete	[redacted] The inpad erectors at both launch pads were partially elevated; a rail spur was being constructed from the northern missile-ready bunker to the main rail line serving this site	[redacted] An empty SL-11 rail transporter was on the south launch pad; 3 box-like vents had been added to the roof of the northern missile-ready bunker; the previously reported rail spur was complete	NSC	NSC	NSC	[redacted] An SL-14 was on a rail transporter at the south launch pad [redacted] The SL-14 launch vehicle previously observed on the south launch pad was no longer present; a rail-transportable crane at the north launch pad had removed the launch stand mating ring from the pad aperture and placed it on the apron [redacted] The inpad erector at the south launch pad was cleared of snow and the launch stand mating rings were in place in their pad apertures [redacted] Evidence of a recent launch at the south launch pad consisted of snow melt disturbance and slight discoloration around the launch pad; an empty rail transporter was onsite	[redacted] The rail transporter had been removed; 2 propellant railcars were at one of the propellant bunkers

* *No significant change*

Table 8. Support Facilities and Associated Systems at PMSTC

This table in its entirety is classified TOP SECRET RUFF

Facility	Systems	Remarks
Complex Support Facility	Weapon & space	Primarily housing and admin
Missile Handling Facility	Weapon & space	
[redacted]		25X1
Rail-to-Road Transfer Point	Weapon & space	
Complex Support Facility North	Unknown	Primarily housing and admin
Complex Support Facility 2	—	Construction support
Sites 9 & 10 Support Facility	Space	
East Support Facility	Weapon	
Rangehead Tracking Facility	—	Missile tracking
Telemetry Tracking Facility	Weapon	Missile tracking
Dummy Launch Site A	—	Training
Dummy Launch Site B	—	Training
Type IIIE Site Mockup	—	Possible training
Possible Warhead Fragmentation Test Facility	—	

Table 9. Chronology of Significant Events and Construction Activity at PMSTC Support Facilities

This table in its entirety is classified TOP SECRET RUFF

Facility	May 1978	June 1978	July 1978	August 1978	September 1978	October 1978	November 1978	December 1978	January 1979	February 1979	March 1979
Complex Support Facility	NSC*	NSC	[redacted] Grading for 4 barracks/admin bldgs, 2 support bldgs, and 1 high-bay bldg were observed	[redacted] A foundation for a third support bldg was observed near the concrete plant	NSC	[redacted] A poss headquarters bldg was externally complete in an area immediately south of the river; this foundation had been begun by [redacted]	[redacted] 2 of the 4 previously reported barracks/admin bldgs, both support bldgs, and the high-bay bldg were externally complete; foundations for another barracks/admin bldg were observed	NSC	[redacted] 3 of the 4 barracks/admin bldgs appeared to be externally complete	NSC	NSC
Missile Handling Facility	[redacted] A T-shaped foundation for a barracks was observed in the housing/admin area [redacted] Many canvas-covered objects/pieces of equipment were on the apron in front of the checkout bldg in the payload checkout area; in the SS-13 ground support equipment training and storage area, the simulated SS-13 door was open and remained so until [redacted]	[redacted] A mobile gantry crane was in the large high-bay bldg in the space vehicle receiving and checkout area; many small vehicles/trucks and an SS-13 transporter/silo loader were also observed in the SS-13 GSE training and storage area; a prob SS-13 silo loading exercise was in progress [redacted] In the SS-13 receiving and checkout area, 2 SS-13 transporters/silo loaders were observed; at the payload checkout area, 3 type II warhead vans, 2 prob type I warhead vans, and 2 mobile cranes were observed; this suggests that this area may no longer be exclusively associated with space payloads	[redacted] 4 SS-13 transporters/silo loaders were in the SS-13 receiving and checkout area; 1 was on the apron in front of the 4-bay garage, 1 was adjacent to the 4-bay garage, and 2 were entering the area [redacted] 3 SS-13 transporters/silo loaders were in the SS-13 GSE training and storage area; 2 of the transporters silo loaders were just east of an 8-bay garage, and the third transporter/silo loader was aligned with the open IIIE GSE training silo [redacted] A prob MAZ-543 cargo truck was in front of the 4-bay garage in the SS-16 receiving and checkout area; trenches were observed just west of the payload handling area	[redacted] The previously mentioned unid objects in the payload handling area had been removed [redacted] 1 SS-13 transporter/silo loader was erected over the GSE training and storage area	[redacted] In the space launch vehicle receiving and checkout area, a rail spur originating from the main rail line and connecting the smaller high-bay bldg to the 2-bay garage had been begun by [redacted] [redacted] 2 SS-13 transporters/silo loaders were in the GSE training and storage area; 2 of the 3 large apartment bldgs in the housing/admin area had been completed; the third large apartment bldg was in a late stage of construction	[redacted] A TWIN EAR was parked in the SS-16 receiving and checkout area; this was the first sighting of a TWIN EAR since Apr 76; canvas panels were draped along the sides of the rail off-loading structure and the missile assembly checkout bldg	NSC	[redacted] 3 The area of trenching observed west of the payload handling area on [redacted] had been leveled, and footings for a large bldg were observed	[redacted] The TWIN EAR reported on [redacted] was no longer present [redacted] Grading for a new rail spur was observed between the SS-13 receiving and checkout area and the SS-16 receiving and checkout area	NSC	[redacted] in the housing/admin area, footings for a new support bldg were observed
[redacted]											
Rail-to-Road Transfer Point	NSC	NSC	No usable imagery	NSC	NSC	[redacted] 11 vehicles/pieces of equipment were observed at the facility	NSC	No usable imagery	No usable imagery	NSC	NSC
Complex Support Facility North	NSC	[redacted] A new athletic field and track had been constructed adjacent to the support area; a support bldg in the vehicle storage/maintenance area had been razed	NSC	NSC	[redacted] The construction of a prob survey tower was observed in a clearing just north of the support facility	NSC	NSC	NSC	NSC	NSC	NSC
Complex Support Facility 2	NSC	NSC	No usable imagery	NSC	No usable imagery	[redacted] Tracks for a traveling gantry crane had been constructed in the material receiving area; 2 support bldgs had been razed by this date	NSC	NSC	No usable imagery	NSC	NSC
East Support Facility	NSC	NSC	[redacted] Trenches extended from an admin bldg to a small rectangular poss support bldg foundation; the trenches were present throughout the reporting period	NSC	[redacted] An excavated area was observed alongside the site access road on the south side of the facility	NSC	NSC	No usable imagery	NSC	NSC	NSC
Rangehead Tracking Facility	NSC	NSC	NSC	NSC	NSC	NSC	NSC	No usable imagery	NSC	NSC	[redacted] The VT-3 (Bow & Arrow) interferometer at this facility was being modified; trees were being cleared along an azimuth of 270° from the central control bldg; the clearing extended approximately 4,500 m
Telemetry Tracking Facility	NSC	NSC	[redacted] A road had been constructed connecting the quonset-type bldg in the facility to the main road	NSC	NSC	NSC	NSC	No usable imagery	NSC	NSC	NSC

*No significant change

REFERENCES

IMAGERY

(TSR) All available KEYHOLE imagery of Plesetsk Missile/Space Test Center SSM, USSR, acquired from [redacted] 25X1
[redacted] was used in the preparation of this report. 25X1

MAPS OR CHARTS

DMA. US Air Target Chart, Series 200, Sheets 0102-9 and -10, scale 1:200,000 (UNCLASSIFIED)

DOCUMENTS

1. NPIC, [redacted] RCA-15/0003/78, *Activity and Developments at Plesetsk Missile/Space Test Center SSM, May 1976 - April 1978 (S)*, Sep 78 (TOP SECRET [redacted] 25X1 25X1
2. DIA/FTD, [redacted] DST-1070S-102-78-SAO, *Plesetsk Missile and Space Range (U)*, 21 Apr 78 (TOP SECRET [redacted] 25X1 25X1
3. NPIC, [redacted] PIR-049/78, *Soviet SS-16/-20 Trends and Developments, February 1978 - November 1978 (TSR)*, Jan 79 (TOP SECRET [redacted] 25X1 25X1

[redacted] 25X1

[redacted] 25X1

[redacted] 25X1

RELATED DOCUMENT

SPACEFLIGHT, British Interplanetary Society, Volumes from May 78—Mar 79 (UNCLASSIFIED)

REQUIREMENT

COMIREX P03
Project 290014DP

(U) Comments and queries regarding this report are welcome. They may be directed to [redacted] Soviet 25X1
Strategic Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1